

REMARKS

Status of Claims

Claims 1-20, 22-24, and 26-42 were previously pending. Claims 15, 22, and 36 have been amended and claims 29 through 35 have been canceled herein. Thus, claims 1-20, 22-24, 26-28, and 36-42 remain pending with claims 1, 22, 36, and 40 being independent.

Interview Summary

Applicants' representative held an in-person interview with Examiners Kaplan and Sherry on June 5, 2007. Applicants thank the Examiners for the courtesies extended during the interview. The cited reference Pan and independent claim 1 were discussed. No agreement was reached regarding the allowance of any claim. Applicants respectfully disagree with the June 5, 2007, Interview Summary, as far as it suggests any agreement by Applicants as to what claim 1 may or may not be limited to.

Office Action

In the April 9, 2007, Office Action, the Examiner rejected claims 1-5, 23, 24, 26, 28, 29, 34, 35 and 49-42 under 35 U.S.C. 102(e) as being anticipated by Pan (U.S. Pat. Pub. No. 2004/0158772). The Examiner also rejected claims 6-20, 22, and 30-33 under 35 U.S.C. 103(a) as being unpatentable over Pan; rejected claim 27 under 35 U.S.C. 103(a) as being unpatentable over Pan in view of Boenig (WO 98/09359); and rejected claims 36-39 under 35 U.S.C. 103(a) as being unpatentable over Pan in view of Reijnen (U.S. Patent No. 6,658,891).

Independent Claims 1 and 22

Claim 1 recites an electrical power system comprising "a bus electrically connecting each of the generators with each of the loads, wherein the bus is rated at less than the total power consumed but carries all of the total power consumed from the generators to the loads without overloading the bus." The total power consumed is determined by summing the loads, as is also recited in claim 1. In use and as discussed on page 11, lines 15-26, of the present application, an

engineer may perform a circuit analysis to place various loads and generators along the bus in a manner that will not overload any portion of the bus even when the bus is rated at less than the total power consumed by the loads. For example, as shown in FIG. 2, the total power consumed by the loads may be 326 MVA while no segment of the bus exceeds 68 MVA due to careful positioning of the loads and/or generators using Kirchhoff's law or other circuit analysis methodology.

The Examiner contends that Pan discloses this feature of claim 1 because Pan employs conventional load shedding that enables loads to be dropped when generators are down for maintenance.¹ In particular, the Examiner somehow concludes that Pan's bus is rated at less than the total power consumed, as recited in claim 1, because load shedding can occur while the bus "carries all of the total power consumed from the generators to the loads without overloading the bus." This conclusion is illogical as if a load is dropped (through load shedding) no power is being provided to the dropped load so the bus is no longer carrying all of the power to all of the loads. The point of load shedding is to reduce the power demands on the bus and generators by carrying less than all the power to the loads.

The bus recited in claim 1 is rated at less than the total power consumed but carries all of the total power consumed from the generators to the loads due to the positioning of the loads and generators. A system which employs load shedding to prevent overloading does not disclose or suggest this feature as it would be operable to carry only some (and not all) of the total power initially consumed by the loads because some of the loads (and associated power) are being dropped through load shedding.

As such, Pan, alone or in combination with any other prior art of record, does not disclose or suggest all features recited in claim 1. Independent claim 22 also recites "wherein the bus is rated at less than the total power consumed but carries all of the total power consumed from the generators to the loads without overloading the bus" and is allowable for the same reason as claim 1.

¹ April 9, 2007, Office Action, ¶ 2.

Independent claim 36 has also been amended herein to recite features similar to those disclosed above.

Independent Claim 40

Independent claim 40 is a method claim that recites various steps for designing an electrical power system. Among the recited steps is “(e) determining where each generator and each motor should be connected to the bus in order to prevent the bus from becoming over-loaded.” In use and as discussed on page 11, lines 15-26, of the present application, an engineer may perform a circuit analysis to place the generators along the bus in a manner that will not overload any portion of the bus—even when the bus is rated at less than the total power consumed by the loads.

The Examiner contends that Pan, FIG. 1, discloses this recited method step. As no explanation of this contention is provided, Applicants assume that the Examiner has concluded that because Pan uses load shedding to drop excess loads, it must disclose the claimed feature of “determining where each generator and each motor should be connected to the bus in order to prevent the bus from becoming over-loaded.”

However, the load shedding of Pan does not inherently disclose the feature of determining generator placement to prevent a bus from becoming overloaded. Pan is directed at managing already designed electric power networks (§ 0007) by identifying failure-prone components and determining an associated risk value (§ 0008). Pan provides no disclosure or suggestion regarding how one would place the generators along the bus in a manner that will not overload any portion of the bus even when the bus is rated at less than the total power consumed by the loads, as recited in claim 40.

In fact, Pan assumes that load shedding will be required to prevent a bus from being overloaded (§§ 0035-0036) thus implying that electrical power systems will not be designed as recited in claim 40. Further, the systems managed by Pan each require transformers (15a, 15b, and 15c in FIG. 1) to provide proper power levels to the bus—as opposed to placing the

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generators as claimed—thereby further indicating that Pan does not disclose or suggest the features recited in claim 40.


Conclusion

In view of this response and the remarks herein, Applicants respectfully submits that all pending claims are in allowable condition and requests a corresponding Notice of Allowance. In the event of further questions, the Examiner is urged to call the undersigned. Any additional fee which is due in connection with this amendment should be applied against our Deposit Account No. 19-0522.

Respectfully submitted,

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